

## ABSTRACT OF THE DISCLOSURE

A packet scheduling apparatus corrects an overhead amount between a DSL rate and a packet rate, converts DSL rate information to the packet rate, and shapes the IP packets from the Internet such that the IP packets are delivered at a transmission rate equal to or lower than the packet rate. An IP/ATM converter converts the IP packets from the packet scheduling apparatus to ATM cells. A DSL multiplexer has a DSL current rate detector for supplying DSL rate information indicative of a currently set DSL rate, and transmits the ATM cells from the IP/ATM converter or the IP packets from the packet scheduling apparatus to user terminals through DSL processing using telephone lines.